

Enclosure II

General Responses To Comments Received During the August 7, 2002 - November 8, 2002 Public Comment Period on Documents Developed pursuant to the January 2000 RCRA Section 3008(h) Administrative Order for the Atlantic Fleet Weapons Training Facility (AFWTF), Vieques, PR

A. Phased Investigation

Comment: Several comments requested that the scope and purpose of the Phase I RCRA Facility Investigation (RFI) needed to be “placed in proper context”, and/or that additional investigations, or a more intensive scope of investigation, should be required.

Response: The primary purpose of Phase I RFI is to determine if contaminants have been released at a site. The work plans were developed to conduct the initial phase [Phase I] of a multi-phase RCRA Facility Investigation (RFI). The objective of the Phase I [initial phase] RFI is to determine whether or not there has been a release of hazardous waste or hazardous constituents [as defined at 40 C.F.R. § 260.10] from any of 12 sites that were identified in the 1988 RCRA Facility Assessment (RFA) conducted for EPA and the 1995 Follow-up RFA conducted by the Puerto Rico Environmental Quality Board (EQB). The 12 sites were identified as either:

- a solid waste management unit (SWMU), i.e., an area where solid wastes [as defined at 40 C.F.R. § 261.2] are, or were formerly, managed, or;
- an Area of Concern (AOC), i.e., an area where a release of hazardous or solid waste, or hazardous constituents may have occurred, though such potential releases are not clearly associated with a SWMU.

As discussed in Section VI.B of the January 2000 RCRA Section 3008(h) Administrative Order, the purpose of the Phase I RFI is to determine whether or not releases of hazardous waste, solid waste, or hazardous constituents have occurred. Following the Phase I RFI, for those sites where a release of contaminants in concentrations exceeding EPA human health-based screening levels is identified, subsequent investigations will be completed under a Phase II RFI to then fully characterize the nature and extent of the contamination, and provide sufficient data to evaluate the risk that contamination may pose to human health and/or the environment.

The types of media proposed to be sampled during the Phase I RFI are dependent on the nature of the unit [SWMU or AOC] and the likely pathways for releases. For example, if the unit is wholly above ground, such as the waste oil and paint accumulation areas (SWMUs 6,

7, and 8), or a spent battery accumulation area (SWMU 5), any release from those units would have to impact surface soils; therefore, the Phase I RFI for those units requires only surface soil sampling at the locations closest to the unit where runoff would be anticipated to occur. For the “photo-identified” (PI) and “potential areas of concern” (PAOC) sites that were identified as a scarred or cleared area on an aerial photo, surface soil samples will be collected if there other field documentation or historical documentation that a potential release may have occurred.

In the event that a release of hazardous waste, solid waste, or hazardous constituents is revealed during the Phase I investigations, additional surface soil sampling, as well as subsurface soil sampling and possibly groundwater sampling would be implemented for those SWMUs where a release is indicated, as a Full [or Phase II] RFI. The purpose of the Full RFI would be to: a) determine the nature and composition of all releases, b) identify all media impacted by any releases from that SWMU, and c) define fully the vertical and horizontal extent of all releases. Should the Full RFI demonstrate there is a potential for the contamination to impact human health and/or ecological receptors, such as marine wildlife, then detailed human health and ecological risk assessments would be completed as part of the Full RFI, or subsequent corrective measures study (CMS).

In the case of the former landfill at Camp Garcia (SWMU #1), because the wastes were disposed of either directly on the ground, or in excavated trenches below ground surface, the most likely media to pose unacceptable risks to human health or the environment from releases of hazardous waste or constituents are either surface soils or the groundwater. As a result both surface soil and groundwater sampling are required as part of the Phase I RFI for this SWMU. However, sampling of subsurface soils or buried wastes in the landfill itself are not being implemented as part of the Phase I investigations, because: a) under current site usage and conditions, any risk resulting from the buried wastes and/or contaminated subsurface soils would most likely be via releases of hazardous constituents from those wastes and/or any contaminated subsurface soils to the groundwater, b) penetrating the landfill material to obtain subsurface soil sample could create preferential pathways for migration of contaminants from the landfill material to the air and/or the groundwater, and c) penetrating the landfill material could potentially create a safety hazard. Therefore, if significant releases of hazardous waste or constituents are found in the groundwater or the surface soils during the Phase I investigations at SWMU #1, or at any of the other SWMUs or AOCs investigated, then sampling of subsurface soils as part of the Full [or Phase II] RFI may be warranted.

B. Classification of Sites

Comment: Several comments concerned how the sites were classified as to whether they are classified as SWMUs, AOCs, PI's, PAOCs, etc..

Response:

SWMUs are solid waste management units (SWMUs), which are areas where solid and/or hazardous wastes [as defined at 40 C.F.R. § 261] are managed, or were formerly managed in the past.

AOCs are Areas of Concern. These are areas where possible releases to the environment that may impact human health or the environment are indicated, but are not clearly associated with solid waste [as defined at 40 C.F.R. § 261]. Such areas are classified as an area of concern (AOC), pursuant to EPA's "Omnibus Authority"[Section 3005(c) of RCRA, 42 U.S.C. 6925(c)].

PAOCs are "potential areas of concern". This term was adopted in the *Final Description of Current Conditions Report* to identify areas where Navy archive research and building records indicate that buildings or structures are known to have formerly existed. Furthermore, while those buildings or structures are not definitively known to have been associated with solid waste management; based on the types of activities performed there, releases of hazardous constituents to the environment may be present. However, there was not sufficient information at the time of the development of the *Final Description of Current Conditions Report* (February 2001) to classify them as SWMUs or AOCs.

PI's are "photo-identified" sites. These are areas which were not identified in the 1988 RFA conducted for EPA and the 1995 Follow-up RFA conducted by EQB, but which were subsequently identified based on historical aerial photographic analysis studies. The areas of potential interest identified by these aerial photographic studies were incorporated into the February 2001 "*Description of Current Conditions Report*" [which is required under the RFI Scope of Work under the January 2000 Consent Order], and are designated as PIs.

However, the PAOCs and PIs have not yet been determined to constitute either SWMUs or AOCs. Under the September 2001 *Site Specific RFI Work Plan* [which was also included with the documents under this public review and comment] the Navy is required to evaluate all 35 PAOCS and PIs identified in the February 2001 *Final Description of Current Conditions Report*, and recommend which of the 35 PAOCS and PIs warrant further environmental investigation. The results of this evaluation of the PAOCS and PIs are to be given in the Draft Phase I RFI Final Report, which is required under the January 2000 Consent Order. The Draft Phase I RFI Final Report will be made available for public review and comment prior to EPA giving its final approval of that report.

Any additional investigations recommended in the Draft Phase I RFI Report will be included in either the Full [Phase II] RFI work plans developed pursuant to the January 2000 Consent Order, or other investigations conducted in the future under Superfund.

C. Basis for Selection of Sites

Comment: Several comments concerned why only the 12 sites were selected for investigation and whether any of the SWMUs or AOCs identified in the 1988 RFA or 1995 Follow-up RFA were removed from the “current list under investigation via the Consent Order”.

Response: The 12 sites required to be investigated under requirements of the January 2000 RCRA 3008(h) Administrative Order on Consent (“the January 2000 Consent Order”) were based on the 1988 RCRA Facility Assessment (RFA) prepared by A.T. Kearney, Inc. for EPA and the September 1995 Follow-up RFA conducted by the Puerto Rico Environmental Quality Board (EQB), as well as the September 1984 *Initial Assessment Study of Naval Station Roosevelt Roads* [which included sites on Vieques] (“the IAS”) prepared by Greenleaf/Telesca Inc. for the Navy.

The 1988 RFA and 1995 Follow-up RFA had recommended no environmental sampling at the 11 SWMUs and 8 AOCs described in those two documents. However, as discussed in Section IV.7 of the January 2000 Consent Order, EPA subsequently determined that environmental investigations were warranted at 9 SWMUs and 3 AOCs. Also, as discussed in Section IV.7 of the January 2000 Consent Order and Responses E and F below, three additional SWMUs [SWMUs #3, #9, and #11], though warranting environmental investigation and cleanup, were excluded from the requirements of the January 2000 Consent Order because they were parts of actively used military range sites at the time the Consent Order became effective.

In addition, as discussed in Section IV.7 of the January 2000 Consent Order and in the footnotes to Tables 1 and 2 of that Section, for the purposes of the Order, the following changes in classification were made to certain SWMUs and AOCs, as defined in the 1988 RFA and 1995 Follow-up RFA:

AOC B was designated as a SWMU [#12];

AOCs C, D, and E were included as part of SWMU #4 [as discussed in Response D below];

AOC H was included as part of SWMUs 6 and 7, which are contiguous; and

AOC G, the chlorination building at the closed sewage treatment lagoons was included under the investigation requirements at SWMU 10, the sewage treatment lagoons.

Therefore, as discussed above, no SWMUs or AOCs were removed from the “current list under investigation”.

In addition, pursuant to the January 2000 Consent Order, the Navy was required to develop a “Description of Current Conditions” report, as Task I in the development of an acceptable RCRA Facility Investigation (RFI) Work Plan [pursuant to Appendix A of the January 2000 Consent Order]. The contents of the “Description of Current Conditions” report were to include, among other things, the identification and description of all current and past areas where solid waste or hazardous waste [as defined at 40 C.F.R. § 261] were previously managed, including any not previously identified in the RFAs. The Navy developed the February 2001 *Final Description of Current Conditions Report* pursuant to those requirements. In addition to the 12 SWMUs [includes the 3 “excluded” SWMUs] and 3 AOCs recognized in the January 2000 Consent Order, an additional 35 sites, previously not identified in the RFAs or the IAS, were identified in the February 2001 *Final Description of Current Conditions Report*. These 35 sites included 23 “photo identified” areas (PI’s) [identified based on historical aerial photographic analysis], and 12 “potential areas of concern” (PAOCS) [identified based on Navy building records and personnel interviews].

The February 2001 *Final Description of Current Conditions Report* was one of the documents undergoing public review during this public comment period.

As discussed in Response B above, one of the tasks in the September 2001 *Site Specific RFI Work Plan* [which was also included with the documents under this public review and comment] is for the Navy to complete an evaluation of the 35 PAOCs and PIs identified in the February 2001 *Final Description of Current Conditions Report*, and recommend which of the 35 PAOCs and PIs warrant further environmental investigation. The results of this evaluation of the PAOCs and PIs are to be given in the Draft Phase I RFI Final Report, which is required under the January 2000 Consent Order. The Draft Phase I RFI Final Report will be made available for public review and comment prior to EPA giving its final approval of that report.

Any additional investigations recommended in the Draft Phase I RFI Report will be included in either the Full [Phase II] RFI work plans developed pursuant to the January 2000 Consent Order, or other investigations conducted in the future under Superfund.

Commentors should be further advised that the Navy, in conjunction with the termination of its’ operations on Vieques and transfer of the administration of the property to the U.S. Department of the Interior (DOI), has recently developed a Draft Final *Environmental*

Baseline Survey (EBS) report and a Draft Final *Preliminary Range Assessment (PRA)* report, as well as a report on MEC [munitions and explosives of Concern] Investigations at Red and Blue Beaches (the Red and Blue Beach report). The Draft Final EBS and Draft Final PRA reports provide a more comprehensive assessment of the site history, the environmental conditions throughout the former Navy lands in eastern Vieques than provided in the February 2001 *Final Description of Current Conditions Report*. The Draft Final EBS and Draft Final PRA reports also provide more specific information on the SWMUs, AOCs, PAOCs, and PIs than the information given in the 1988 RFA and 1995 Follow-up RFA, or the February 2001 *Final Description of Current Conditions Report*.

The Draft Final EBS and Draft Final PRA reports were submitted to EPA on May 15, 2003, and include an archive records search, interviews with existing and former employees at the facility, some limited soil sampling and analysis results for samples collected at several of the PI sites, and a detailed discussion of the previous studies completed at AFWTF. The Draft Red and Blue Beach report was received by EPA on April 2, 2003. These documents are still classified as Draft by the Navy, and it is EPA's understanding that the Navy has not yet made the Draft EBS and Draft PRA reports, as well as the Red and Blue Beach report, available for public review and inspection.

D. Basis for Combining Certain SWMUs and AOCs

Comment: There were several comments on why former AOCs C, D, and E were incorporated into SWMU#4.

Response: As indicated in Response C above, EPA's basis for incorporating former AOCs C, D, and E, as defined in the 1988 RFA and the 1995 Updated RFA reports, are discussed in foot-notes given at Tables 1 and 2 of Section IV.7 of the January 2000 RCRA Consent Order. Basically, since the three former AOCs are all located either at, or contiguous to the same building where SWMU #4, as described in the 1988 RFA report, is located, and since they all managed solid waste [as defined at 40 C.F.R. § 261], EPA determined they in fact constituted SWMUs, but they were consolidated under the January 2000 Consent Order into a unified and expanded SWMU #4, as now defined in Table 1 of Section IV.7 of the January 2000 RCRA Consent Order.

E. Unexploded Ordnance [UXO] Issues

Comment: Numerous comments concerned how UXO, which is also now referred to by the Navy as OE/MEC [Ordnance and Explosives/Munitions and Explosives of Concern] , will be addressed.

Response: The primary objective of the work plans were to address potential releases of hazardous waste and hazardous constituents at inactive, known, former waste management sites within the Navy's eastern Vieques lands. Three munitions related sites: the OB/OD Site (SWMU 3), the Live Impact Area (SWMU 9), and the Non-Explosives Firing Range (SWMU 11) were excluded from the January 2000 Consent Order because they were active military range sites at the time the Consent Order became effective. Since the investigations under the Consent Order address inactive sites, investigation of these three sites was deferred. In addition, other formerly active [at the time the Consent Order became effective] military ranges sites, including 6 small arms ranges and several artillery gun positions, were not included under the Consent Order, because either, under 40 C.F.R. § 266 Subpart M ("the Military Munitions Rule") they were not considered solid waste management units at the time the Consent Order became effective, and/or they had not previously been identified to EPA.

As discussed previously in Response C, because it has now terminated its operations in eastern Vieques, the Navy has recently prepared a Draft Preliminary Range Assessment (PRA) Report to identify all locations and types of munitions used throughout the Navy's eastern Vieques lands. Based on the results of the PRA, the Navy has indicated that all potential unexploded ordnance (UXO) [a/k/a as Munitions and Explosives of Concern (MEC)] sites will be recommended for further investigation. The Navy has indicated to EPA that, based on the results of the PRA, the Navy plans to develop a schedule and priority for future investigation of all identified UXO/MEC sites in its former eastern Vieques lands.

Any future investigation of all identified UXO/MEC sites in the Navy's former eastern Vieques lands will be implemented either pursuant to the January 2000 Consent Order, or under a new Federal Facilities Agreement (FFA) under Superfund.

F. Basis for Exclusion of Military Range Areas

Comment: Several comments queried which areas are considered active [military range] areas.

Response: As discussed in Section IV.7(d) of the January 2000 Consent Order, three areas are specifically excluded from the "corrective action requirements under the terms and conditions of this [January 2000 Consent] Order." They were excluded because they "...[were] within active ranges...". These three areas are:

- a) the Waste Explosive Ordnance Detonation Area [i.e., the OB/OD site] (SWMU 3);
- b) the Explosives Ordnance Firing Range (SWMU 9), and
- c) the Non-Explosives Firing Range (SWMU 11), which is in fact the Live Impact Area (LIA).

As discussed in Section III.2 of the January 2000 Consent Order, the Consent Order was intended to be an interim instrument, not the final decision on all corrective action issues in regards to the Navy's lands in eastern Vieques. Therefore, as a negotiated interim instrument, these three areas were excluded from the January 2000 Consent Order because they were located [at that time] within actively used military ranges.

The three excluded SWMUs are shown on Figure 1-2 of the February 2001 "*Description of Current Conditions Report*", and Figure 1-2 of the September 2001 "*Draft Final Site Specific Work Plan, Phase I RCRA Facility Investigation*". Both of these documents were part of the August - November, 2002 public review and comment period. While the full limits of SWMU 9, the Explosives Ordnance Firing Range [i.e., LIA], are not clearly delineated on the respective Figures 1-2, commentors are advised that SWMU 9, the Explosives Ordnance Firing Range [i.e., the LIA] is situated wholly within the limits of the land areas that are east of the "Approximate Boundary of AFWTF" as shown on the respective Figures 1-2.

In addition, as discussed in Responses C and E above, because it has now terminated its operations in eastern Vieques, the Navy has recently prepared a Draft Preliminary Range Assessment (PRA) Report to identify all locations where munitions were formerly used throughout the Navy's eastern Vieques lands. Based on the results of the PRA, the Navy has indicated that all potential unexploded ordnance (UXO) [a/k/a as Munitions and Explosives of Concern (MEC)] sites will be recommended for further investigation. The Navy has indicated to EPA that, based on the results of the PRA, they plan to develop a schedule and priority for future investigation of all identified UXO/MEC sites in its former eastern Vieques lands.

G. When and How Will the Range Areas be Addressed

Comment: Several comments concerned when and how the previously active range [UXO/MEC] areas will be addressed.

Response: The January 2000 Consent Order could be amended, either through an Amendment signed by [i.e., negotiated] both EPA and the Navy, or unilaterally by EPA [though that is unlikely to occur], to include investigation and clean-up of all previously active range [UXO/MEC] areas in the Navy's former lands in eastern Vieques. However, as discussed previously in Response E, these previously active range [UXO/MEC] areas are more likely to be addressed under an FFA negotiated between EPA and the Navy, and other relevant agencies such as the U.S. Department of the Interior and the Puerto Rico Environmental Quality Board.

H. Groundwater Investigations

Comment: Several comments concerned why groundwater was to be investigated at certain SWMUs or AOCs, but not others.

Response: As previously discussed in Response to Comment A, the primary purpose of Phase I RFI will be to determine if contaminants have been released at a site. For those sites where the release is expected to be a surface release, surface soil samples will be collected. If surface contamination is detected then subsurface soil samples are collected. For site where there is anticipated that the release of contaminants are below the surface (such as the Camp Garcia Landfill), groundwater samples are to be collected. Groundwater samples are proposed only at those sites where subsurface contamination is anticipated. For the other sites groundwater wells will be installed during a Full [Phase II] RFI if the surface and subsurface samples collected in the Phase I RFI show there is a potential for groundwater contamination. Following the installation of groundwater monitoring wells, groundwater elevation data will be collected from the wells to demonstrate that the wells are installed downgradient from the site. If it is determined that the wells are not downgradient additional wells will be installed downgradient during the Full [Phase II] RFI.

I. Groundwater Monitoring along Western Boundary

Comment: Several comments concerned the need for more groundwater monitoring wells along the western boundary of Navy lands.

Response: A total of 11 wells have previously been installed along the western boundary of Navy lands and sampled in 1999 for 18 explosive constituents. No explosive constituents were detected in the groundwater [refer to the November 4, 1999 report “Final Results of the Hydrogeologic Investigation, Vieques Island Puerto Rico”]. However, EPA required that four of those 11 wells also be sampled for a broad screen of hazardous constituents [refer to the September 6, 2001 “Draft Final Work Plan for Groundwater Baseline Investigation at U. S. Navy’s Eastern Maneuver Area, Vieques Island Puerto Rico”]. This additional sampling is intended to supplement the previous western boundary sampling at the 11 wells, which analyzed for explosive constituents only. Although, explosive constituents are considered the primary constituent of potential concern, based on the nature of the Navy’s activities on Vieques, EPA required a supplemental groundwater sampling in 4 of the 11 wells to determine if there is any indication of releases of other [non-explosive] hazardous constituents. If releases of other hazardous constituents are detected in this supplemental sampling of the 4 wells, additional sampling points would then be required.

J. Perimeter Sampling

Comment: Several comments were in regard to whether perimeter sampling was planned.

Response: In 1999, 11 groundwater wells were installed along the western boundary of the Navy's property and sampled for 18 explosive constituents. None were detected in the groundwater. In addition, 31 surface soil samples were collected along the western boundary of the Navy's property and also analyzed for the 18 explosive constituents. None were detected in those soil samples. The results of this groundwater and soil sampling are given in the November 4, 1999 report "Final Results of the Hydrogeologic Investigation, Vieques Island Puerto Rico." The results of those investigations were submitted to EPA to partially satisfy requirements of the January 2000 RCRA Consent Order, and are discussed in the September 6, 2001 "Draft Final Work Plan for Groundwater Baseline Investigation at U. S. Navy's Eastern Maneuver Area, Vieques Island Puerto Rico", which was one of the documents under review during the August - November, 2002 public review period. The results from the November 4, 1999 report "Final Results of the Hydrogeologic Investigation, Vieques Island Puerto Rico" are incorporated by reference into the requirements of the work implemented under the Order. No other perimeter sampling is planned, other than the additional groundwater sampling described in the September 6, 2001 "Draft Final Work Plan for Groundwater Baseline Investigation at U. S. Navy's Eastern Maneuver Area, Vieques Island Puerto Rico."

K. Establishing Background Conditions

Comment: Several comments concerned how background conditions will be determined and how that background data will be used.

Response: Based on the comments received and recent information that was obtained through the development of the Environmental Baseline Survey and the Preliminary Range Assessment Report, the Navy has requested that the "*Draft Final Sampling Analysis Plan Soil and Groundwater Background Investigation*" be withdrawn and substantively revised or replaced. EPA concurs with the Navy's request to substantively revise or replace its proposal to establish background conditions. The background investigation will address background conditions associated with naturally occurring constituents and background associated with anthropogenic conditions. EPA will advise the community when the substantively revised or replaced Background work plan is available for public inspection and review.

L. Community Relations Work Plan

Comment: Many comments concerned Community Relations issues.

Response: The community and stakeholders, including the municipality and EQB, will be

active participants in creating the Community Involvement Plan (CIP). That has already begun to happen through the submission of comments on the March 2002 work plan for developing it. Also, the interview process outlined in the March 2002 work plan provides the opportunity for stakeholders/community members to discuss with EPA and the Navy ways in which public outreach can be most effective. It also allows EPA and the Navy to determine areas of public concern so that the CIP reflects those issues and provides meaningful mechanisms for those concerns to be addressed throughout the investigation and cleanup process. EQB will participate in that interview process as well. In order to provide a transparent and community driven process, the draft community involvement plan will be available for public comment for 30 days in both English and Spanish, allowing an even greater opportunity for public input.

M. Additional Historical Information For Sites

Comment: Several comments request additional information on the sites to understand the rationale of the sampling locations.

Response: The work plan was developed by the Navy based on a limited review of available documents, including the October 1988 RCRA Facility Assessment (RFA) prepared by A.T. Kearney, Inc. for EPA and the September 1995 Follow-up RFA conducted by the Puerto Rico Environmental Quality Board (EQB), the September 1984 *Initial Assessment Study of Naval Station Roosevelt Roads* [which included sites on Vieques] prepared by Greenleaf/Telesca Inc. for the Navy, and two aerial photographic studies performed for the Navy [the August 2000 “Draft Air Photo Analysis of EMA/AFWTF” by Environmental Research Inc. (ERI, 2000) and the 1999 “Aerial Photograph Study” by Lockheed Martin Corp.]. The Navy has indicated that the results of the two aerial photographic studies were incorporated [as “PIs”, etc.] into the February 2001 *Final Description of Current Conditions Report*, which was one of the documents under public review during this public review and comment period. Those two aerial photographic reports have not yet been submitted to EPA; though portions of the ERI, 2000 were included in the April 2003 Draft *Final Environmental Baseline Survey* (EBS) submitted to EPA on May 15, 2003 [as discussed below]. The Navy has indicated that it intends to place copies of both aerial photographic studies (ERI, 2000 and Lockheed Martin, 1999) in all public repositories identified in the Community Relations Work Plan.

The Navy, in conjunction with the termination of its’ operations on Vieques and transfer of the property to the U.S. Department of the Interior (DOI), has developed a Draft Final *Environmental Baseline Survey* (EBS) and a Draft Final *Preliminary Range Assessment* (PRA). The Draft Final EBS and Draft Final PRA provide a more comprehensive assessment of the site history, the environmental conditions throughout the former Navy

lands in eastern Vieques, and more specific information on the SWMUs, AOCs and PIs identified in the February 2001 *Final Description of Current Conditions Report*. The Draft Final EBS and Draft Final PRA were submitted to EPA on May 15, 2003, and include an archive records search, interviews with existing and former employees at the facility, some limited soil sampling and analysis results for samples collected at several of the PI sites, and a detailed discussion of the previous studies completed at AFWTF. The Navy has indicated that for all PAOCS and PIs identified in the identified in the February 2001 *Final Description of Current Conditions Report* and the September 2001 *Site Specific RFI Work Plan*, the results of the EBS and PRA studies will be incorporated into the Draft RFI Phase I Report. The Draft RFI Phase I Report is required under the September 2001 *Site Specific RFI Work Plan* which was included with the documents under this public review and comment. Any additional investigations recommended in the Draft RFI Phase I Report will be included in either the Full [Phase II] RFI work plans developed pursuant to the January 2000 RCRA Consent Order, or other investigations conducted in the future under Superfund.

N. Technical and/or Editorial Clarifications

Comment: Some comments have addressed areas where there are ambiguities or discrepancies within the work plans that need to be revised or clarified.

Response: Items in the work plans that have been revised or clarified are described in Enclosure III. The Applicable Responses identified in Enclosure I with the letter “N” are addressed by the corresponding responses given in Enclosure III.

O. RCRA Section 3008(h) Order on Consent (Consent Order) - Scope and Requirements

Comment: Some comments requested information that is either: a) already provided in the Consent Order; or b) is beyond the scope of the requirements of the Consent Order. Requested information that is already provided in the Consent Order, includes comments regarding: the schedule of reports, the sites that were selected to be included in the RFI investigation, the laboratory qualifications, the rationale for deferring the investigations at selected UXO sites and specific requirements of the “western perimeter baseline groundwater investigation”.

Response: The documents that were part of this public review period were developed pursuant to the requirements of the RCRA 3008(h) Administrative Order on Consent (the Consent Order) between EPA and the United States Navy. The Consent Order became effective in January 2000. To obtain specific information on the scope and requirements of the Consent Order, including information regarding: the schedule of reports, the sites that were selected to be included in the RFI investigation, the laboratory qualifications, the

rationale for deferring the investigations at selected UXO sites and specific requirements of the “western perimeter baseline groundwater investigation”. A copy of the Consent Order has been previously placed in the public repositories, and is also available on the internet at <http://www.epa.gov/region02/vieques.htm>.

P. Information Is Not Available

Comment: Some comments requested more specific information about a site or the history of the former facility that was not available from either the review of historical documents or the interviews.

Response: Where the lack of this information has impacted the proposed investigations a conservative approach has been taken to assess whether or not a hazardous waste release has occurred at a particular site. As an example, at sites where there was little or no information on the types of contaminants may have been used or stored at a site the samples collected will be analyzed for a comprehensive list of hazardous constituents (Appendix IX Analysis).

Q. Sampling Procedures

Comment: Several comments requested additional information regarding field sampling procedures.

Response: The soil and groundwater sampling procedures selected in the work plans are based on the requirements of Section X of the January 2000 RCRA Consent Order, and site specific conditions. The sampling procedures are consistent with procedures that have been widely followed at RCRA and CERCLA [“Superfund”] sites throughout the U.S. Groundwater sampling will be conducted in accordance with the most recent EPA Guidance including “EPA RCRA Groundwater Monitoring Draft Guidance (EPA/530-R-93-001) and Region 2’s March 16, 1998 [Standard Operating Procedure (SOP)] “Ground Water Sampling Procedure Low Stress (Low Flow) Purging and Sampling”. For all groundwater sampling results, the reports generated under the approved work plans will include: lithologic well logs and well construction logs; all field data for the well stabilization parameters; and all water level elevation measurements, including the thickness of any non-aqueous phase liquid layers, if present.

R. Laboratory Reporting Limits

Comment: Some comments addressed the detection limits of the laboratory analyses and how they will compare to risk-based concentrations.

Response: Table 8-2 of the Master Quality Assurance Project Plan (QAPP), which is included in the September 2001 Draft Final Master Work Plan, contains a detailed list of constituents that will be analyzed and reporting limits. Reporting limits (RLs) for explosive compounds will be added to the table. The target list of constituents was compiled based on the required data quality objectives (DQO's). The best available technology will be utilized to determine method detection limits (MDLs) and subsequent RLs. It is widely recognized that current technology cannot meet all of the human health or ecological risk based screening concentration levels. Additionally, MDL's and RL's are laboratory specific. MDL's and RL's will be provided on a project and laboratory specific basis.

S. Subsurface Soil Sampling of the Landfill (SWMU 1)

Comment: A few comments requested the rationale for why subsurface samples are not being collected within the fill material at SWMU 1.

Response: EPA Region 2 does not generally recommend drilling directly into landfills to obtain samples of the materials within the landfill itself, based on the following factors: 1) if subsurface borings [necessary to obtain samples] are drilled into or through the landfill material, this can create an environmental pathway for potential vertical migration of landfill contaminants into both the air above and/or the subsurface soils and groundwater underneath the landfill material, 2) drilling through the fill material at a landfill can create a safety risk, and 3) the potential for direct human exposure to hazardous wastes or constituents in the landfill material is precluded when the landfill is properly capped [covered], which is EPA's "presumptive remedy" recommended for landfills. In investigating landfills, EPA generally recommends a) evaluating the groundwaters downgradient of the landfill to determine if leaching of hazardous wastes or constituents from the landfill is impacting groundwater, and b) for uncapped landfills, sampling the surface soils to determine if hazardous wastes or constituents are present at the surface, where direct human exposure may occur. If based on the results of the RFI and subsequent Corrective Measures Study (CMS) it is determined that installation of a landfill cap is necessary at SWMU #1, such a cap would be designed to be fully protective of human health, and data on the composition of the subsurface waste material would likely not be required. In addition, if based on the results of the RFI investigations, releases of hazardous wastes or constituents are determined to be impacting the groundwater, ongoing monitoring of the groundwater and other remedial measures may be required.

T. RFI Report Information

Comment: Several comments request more detailed analysis and interpretation of the data in the work plan which is typically presented in the RFI Report and not the work plan. These interpretations include: comparison of the analytical data to risk based screening criteria,

preparation of groundwater flow maps, comparison of the analytical data to background levels, data validation and risk assessment interpretations.

Response: This information requested will be presented in the RFI Report when there is a more comprehensive compilation of data for the site and is therefore premature to include in the work plan.

U. Cross Referencing of Master Work Plan and Site Specific Work Plan

Comment : Some comments requested that additional information on the specific sites to be investigated should be provided in the September 2001 *Master Work Plan*.

Response: The purpose of the *Master Work Plan* is to provide background information on the overall project and detailed procedures to be followed during the investigation, such as the sampling and analytical procedures. For more specific information on the sites to be investigated the reader is directed to the September 6, 2001 *Site Specific Work Plan Phase I RCRA Facility Investigation*, and the February 2001 *Final Description of Current Conditions Report*.

V. Analytical Requirements and Analytical QA/QC

Comment: Several comments requested more information regarding the analytical methods and the quality assurance/quality control (QA/QC) procedures which are to be used to verify the analytical results.

Response: Pursuant to Section X of the January 2000 RCRA Consent Order, the analytical procedures are generally based on EPA's *Test Methods for Evaluating Solid Waste: Physical/Chemical Methods* (EPA Publication SW-846, dated November 1986, as amended by all subsequent updates). The analyte list includes those constituents given at 40 C. F. R. § Part 264 Appendix IX, plus the explosive constituents included under SW-846 Methods 8330 and 8332. The SW-846 method utilized for volatile organic constituent (VOC) analytes (method SW-846 8015) includes a direct aqueous injection. Method SW-846 5030 will be utilized for metals. Although Section X of the January 2000 RCRA Consent Order requires that any laboratory utilized must be certified under EPA's National Contract Laboratory Program (CLP), the Order does not require that the analytical methods follow CLP requirements. Where this is not clear in the work plans the text will be corrected.

Trip blanks are always water regardless of sampling matrix; their purpose is to monitor any

contamination which may be caused by the entire shipment process.

Field blanks are the “source water” used for equipment decontamination and thus are always aqueous. Thus, equipment rinsate blanks are also of an aqueous nature as they are collected after the decontamination process by rinsing the sampling equipment and catching the rinsate in order to determine if the equipment has been properly and completely been decontaminated.

By these definitions, there is no application of a certified free soil as a blank in the field.

However, laboratories common practice industry wide is to utilize muffled Ottawa sand as a solid matrix blank for organic semivolatile extractions; there is no such thing as an analyte free solid blank for metals in the laboratory – analyte free water is used here also.

- **Trip Blank (TB):** A sample of ASTM Type II water that is prepared in the laboratory prior to the sampling event. The water is stored in VOC sample containers and is not opened in the field, and travels back to the laboratory with the other samples for VOC analysis. This blank is used to monitor the potential for sample contamination during the sample container trip. One trip blank should be included in each sample cooler that contained samples for VOC analysis.
- **Equipment Rinsate Blank (ERB):** A sample of the target-free water used for the final rinse during the equipment decontamination process. This blank sample is collected by rinsing the sampling equipment after decontamination and is analyzed for the same analytical parameters as the corresponding samples. This blank is used to monitor potential contamination caused by incomplete equipment decontamination. One equipment rinsate blank should be collected per day of sampling, per type of sampling equipment.
- **Field Blank or Ambient Blank (FB or AB):** The field blank is an aliquot of the source water used for equipment decontamination. This blank monitors contamination that may be introduced from the water used for decontamination. One field blank should be collected from each source of decontamination water and analyzed for the same parameters as the associated samples.
- **Laboratory Method Blank or Method Blank (MB):** A laboratory method blank is ASTM Type II water that is treated as a sample in that it undergoes the same analytical process as the corresponding field samples. Method blanks are used to monitor laboratory performance and contamination introduced during the analytical procedure. One method blank was prepared and analyzed for every twenty samples or per analytical batch, whichever was more frequent.

A portable gas chromatograph (GC) is not part of the field analytical equipment to be utilized for these investigations. Organic vapor analyzers (OVAs) and/or organic vapor meters (OVMs) will be utilized to screen for possible organic vapors in any bore holes, or at sites where organic contamination is indicated. The calibration standards to be utilized for the OVAs and/or OVMs are listed in Table 7.1 the September 2001 *Master Work Plan*. During

the field investigations, calibration of the OVAs and OVMs will be performed before the start of each work day according to procedures and schedules as outlined in Section 5 of the Health and Safety Plan (HASP) and the various standard operating procedures (SOPs), which are included in the September 2001 *Master Work Plan*.

W. Translation of Documents into Spanish

Comment: Several comments requested that all documents be translated into Spanish.

Response: EPA recognizes the need for public information related to the cleanup activities in Vieques to be made available in Spanish language. Consistent with our policy, EPA has produced and translated documents that inform the community and summarize our activities in Vieques. These summary documents include public notices, fact sheets, and posters. It is our policy not to translate technical documents which are meant for a mostly technical audience. As such, we are not planning on translating into Spanish language technical workplans (with the exception of the Community Involvement Plan [the CIP]) or reports.

To ensure that the community is kept informed, and has an opportunity to be meaningfully involved in the cleanup process, EPA will continue to generate summary documents whose target audience will be the public at large. In addition, EPA is making a \$20,000 grant available to a community group in Vieques. Under this grant, the community group will be able to secure independent technical expertise to review relevant documents, assist the public in understanding technical documents, and conduct translations.

Upon completion of the draft CIP, that plan will be translated and will be available in both English and Spanish for a public comment period ensuring that public input plays an important role in the CIP.